



State of Nevada – Department Of Personnel

CLASS SPECIFICATION

<u>TITLE</u>	<u>GRADE</u>	<u>EEO-4</u>	<u>CODE</u>
CARTOGRAPHIC/GRAPHICS TECHNICIAN IV	34	C	6.361
CARTOGRAPHIC/GRAPHICS TECHNICIAN III	31	C	6.364
CARTOGRAPHIC/GRAPHICS TECHNICIAN II	28	C	6.366
CARTOGRAPHIC/GRAPHICS TECHNICIAN I	26	C	6.368

SERIES CONCEPT

Cartographic/Graphics Technicians produce maps which are geographic representations facilitating a spatial understanding of objects, concepts, conditions, processes or events in the world; provide illustrations for publications, presentations and grant applications/reports; and create manual covers, forms, charts, graphs and other graphic materials.

The Cartographic/Graphics Technician series is distinguished from the Photogrammetrist/Cartographer series by the types of maps and other products produced. Cartographers in the Photogrammetrist/Cartographer series perform map compilations based on horizontal and vertical positions which use completed field survey files to develop base maps.

Meet with the project requestor to determine the layout, scale, projection, and end use of the requested materials; research data from government agencies and other sources to obtain hardcopy and/or digital base maps and feature data to compile information such as road networks, legal subdivision lines, State and county lines, boundaries, township and range data, drainage, and related data; research historical records and related data to ensure historical data is properly placed on the map/publication; plot data on the map in accordance with agency and United States Geological Survey (USGS) mapping standards and recognized methods for display of cartographic information.

Compile/create and edit publications, forms, digital images and other information using desktop publishing and illustration software and graphics techniques; prepare data for final output including writing specifications for document and photographic duplication, and coordinating distribution of project materials.

Design and create multimedia displays using related software and equipment for presentations, videos, public information meetings, and court and legislative hearings.

Design and produce displays and create illustrations needed to clarify and amplify technical information for publications, displays and grant applications/reports by computer-aided drawing, desktop publishing, hand drafting, pen and ink drawing, painting in various media, and photography.

Design and produce slides for presentations using a computer, various illustrating and slide-making software, computer operated slide making camera, and related equipment.

Research and develop new routines and processes to translate computer files across different platforms; maintain files of projects, publications, and other related digital information; maintain computer and peripheral equipment software and hardware as required.

Perform related duties as assigned.

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CLASS CONCEPTS

Cartographic/Graphics Technician IV: Under general direction, incumbents perform the full range of duties outlined in the series concept and serve as a first-line supervisor for lower level technicians including providing work direction and evaluating performance, coordinating projects with other divisions and the requesting party, and tracking project workload and completion dates.

Prepare, justify, implement and monitor the division/section budget and submit recommendations concerning personnel, equipment and supplies needed to ensure services are provided efficiently and effectively.

Prepare project/product cost estimates and billing statements.

Cartographic/Graphics Technician III: Under direction, incumbents perform the full range of the duties outlined in the series concept at the journey level.

Cartographic/Graphics Technician II: Under general supervision, incumbents continue to receive training and gain experience in performing the duties outlined in the series concept. Incumbents may progress to the next level in the series upon successful completion of the probationary period and with the approval of the appointing authority.

Cartographic/Graphics Technician I: Under direct supervision, incumbents receive training in the performance of all or part of the duties outlined in the series concept. This is the entry level in the series. Incumbents may progress to the next level in the series upon successful completion of the probationary period and with the approval of the appointing authority.

MINIMUM QUALIFICATIONS

SPECIAL NOTES AND REQUIREMENTS:

- * An Associate of Applied Science degree in Computer Graphics or Multimedia, Geography or closely related field may be substituted for one year of the required experience.

CARTOGRAPHIC/GRAPHICS TECHNICIAN IV

EDUCATION AND EXPERIENCE: Graduation from high school and five years of experience which included writing specifications for document and photographic duplication, performing cartography work and experience in one or more of the following: computer-based desktop publishing, graphic arts, mapping or drafting; **OR** one year of experience comparable to a Cartographic/Graphics Technician III in Nevada State service; **OR** an equivalent combination of education and experience. (*See Special Notes and Requirements*)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Detailed knowledge of: principles of graphic arts and cartographic drafting, including the use of drafting equipment and symbols, nomenclature, and sources of information; desktop publishing systems and computer programs related to the field of graphics, illustration and drafting. **Working knowledge of:** offset printing, imaging and reproduction methods. **Ability to:** write specifications for offset printing, imaging and reproduction projects; negotiate and exchange ideas, information, and opinions with others to formulate policies and/or arrive jointly at decisions, conclusions or solutions as part of a team; *and all other knowledge, skills and abilities required at the lower levels.*

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MINIMUM QUALIFICATIONS (cont'd)

CARTOGRAPHIC/GRAPHICS TECHNICIAN IV (cont'd)

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

Working knowledge of: State law and department policies and procedures applicable to personnel management, budget and the division/section; principles and practices of supervision. **Ability to:** organize material, information and people in a systematic way to optimize efficiency and minimize duplication of effort; train, supervise and evaluate the performance of assigned staff; manage space, equipment and material resources and prepare justifications for acquisitions refer information to different levels of management as appropriate; make oral group presentations to provide information and training; analyze production costs to meet budget guidelines; develop and justify division/section budget; establish and maintain cooperative working relationships with department and division heads, vendors, suppliers and others.

CARTOGRAPHIC/GRAPHICS TECHNICIAN III

EDUCATION AND EXPERIENCE: Graduation from high school and four years of experience which included performing cartography work, and experience in one or more of the following: computer-based desktop publishing, graphic arts, mapping or drafting; **OR** one year of experience comparable to a Cartographic/Graphics Technician II in Nevada State service; **OR** an equivalent combination of education and experience. (*See Special Notes and Requirements*)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Working knowledge of: United States Geological Survey (USGS) mapping standards; geodesic principles and how the curvature of the earth affects a flat map; typography and copyfitting units of measure in order to design projects; methods, materials and techniques used in artistic design and graphics; desktop publishing software and techniques. **General knowledge of:** sources of information within the organization for needed information. **Ability to:** work independently to create colorful, pleasing and informative displays using computer equipment and related software; type sufficiently to prepare forms and reports with accuracy; transcribe information into a form which meets the needs of the department; create manual covers, charts, graphs and other graphic needs; conduct research and obtain information needed for projects; meet with project requestors regarding the type, scope and timelines for projects and products; determine what information and approach is pertinent to specific requests for graphic and/or cartographic materials; *and all other knowledge, skills and abilities required at the lower levels.*

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

Working knowledge of: various printing processes and the best format and medium for reproduction; complete mapping process including various materials to produce full colored maps. **Ability to:** determine areas to be photographed for projects and the appropriate scale; interpret maps and aerial photographs with sufficient accuracy to correctly identify features; trouble shoot problems within the computer system.

CARTOGRAPHIC/GRAPHICS TECHNICIAN II

EDUCATION AND EXPERIENCE: Graduation from high school and three years of experience including performing cartography work, and experience in one or more of the following: computer-based desktop publishing, graphic arts, mapping or drafting; **OR** one year of experience comparable to a Cartographic/Graphics Technician I in Nevada State service; **OR** an equivalent combination of education and experience. (*See Special Notes and Requirements*)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Working knowledge of: principles of graphic arts and cartographic drafting, including the use of drafting equipment and symbols, nomenclature, and sources of information; desktop publishing systems and computer

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MINIMUM QUALIFICATIONS (cont'd)

CARTOGRAPHIC/GRAPHICS TECHNICIAN II

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (cont'd)

programs related to the field of graphics, illustration and drafting; metric system and United States customary units of measurement. **General knowledge of:** convert map measurements and plot grids in metric and United States customary units; United States Geological Survey mapping standards; geodesic principles and how the curvature of the earth affects a flat map. **Ability to:** produce accurate materials suitable for publication; perform tasks and follow through on assignments; perform effectively under conditions of fluctuating work loads to meet established time frames; *and all other knowledge, skills and abilities required at the lower level.*

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):
These are identical to the Entry Level Knowledge, Skills and Abilities required for the Cartographic/Graphics Technician III.

CARTOGRAPHIC/GRAPHICS TECHNICIAN I

EDUCATION AND EXPERIENCE: Graduation from high school and two years of experience which included one year of experience performing computer-based desktop publishing and one year of experience performing graphic arts, mapping or drafting tasks; **OR** an equivalent combination of education and experience. *(See Special Notes and Requirements)*

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Working knowledge of: basic math skills. **General knowledge of:** computer-aided drafting, graphic arts, photography, mapping and desktop publishing. **Ability to:** communicate with effectively both orally and in writing; establish and maintain cooperative working relationships with co-workers and the public; perform repetitive work according to established procedures; add, subtract, multiply and divide whole numbers, fractions and decimals, compute ratios and percentages.

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):
These are identical to the Entry Level Knowledge, Skills and Abilities required for the Cartographic/Graphics Technician II.

This class specification is used for classification, recruitment and examination purposes. It is not to be considered a substitute for work performance standards for positions assigned to this class.

	<u>6.361</u>	<u>6.364</u>	<u>6.366</u>	<u>6.368</u>
ESTABLISHED:	7/1/93P 8/31/92PC	7/1/93P 8/31/92PC	7/1/93P 8/31/92PC	7/1/93P 8/31/92PC
REVISED:	10/15/97R 9/10/99PC	10/15/97R 9/10/99PC	10/15/97R 9/10/99PC	10/15/97R 9/10/99PC